

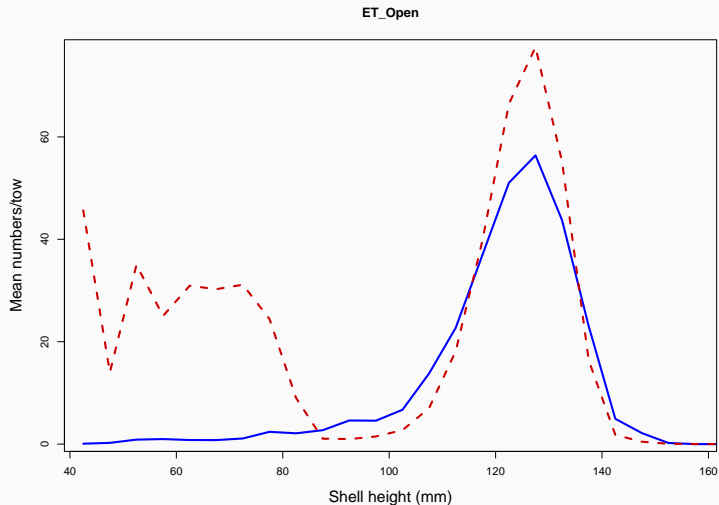
Comparison of 2019 Projected Shell Heights to 2020 Surveys

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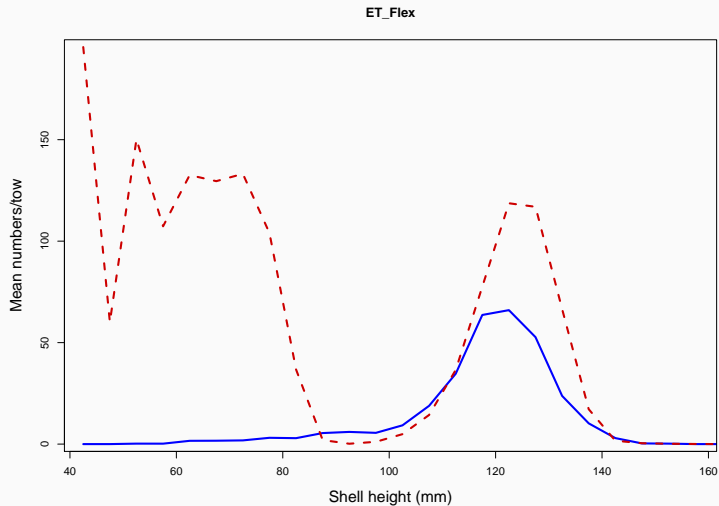
Why do projections differ from observations?

- Error in surveys - for example, if both the 2019 and 2020 surveys in an area have 20% CVs, projections and surveys could differ by up to 50% due to survey error alone.
- Projections were 12 months after 2019 surveys but 2020 surveys were ~ 14 months after 2019 ones. In most areas, the mortality over the extra two months would be less than 0.1. However, no fishing from 2019 to 2020 was assumed in access areas not fished in 2019; thus, projections in areas such as NLS-N and CAII-SE would be expected to be overestimates. Smaller scallops may be larger than projected due to the extra two months growth.
- Fishing and/or natural mortality and/or growth may be different than that assumed in the projections.

Red dashed line - Projection from 2019 Blue line - 2020 surveys

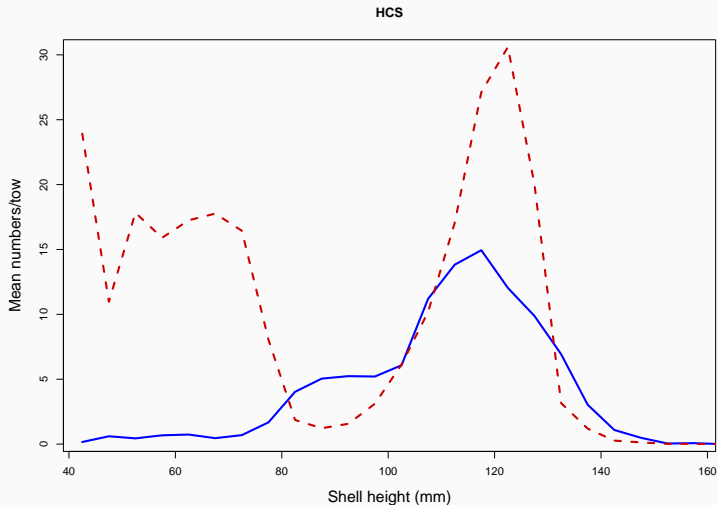


Red dashed line - Projection from 2019 Blue line - 2020 surveys

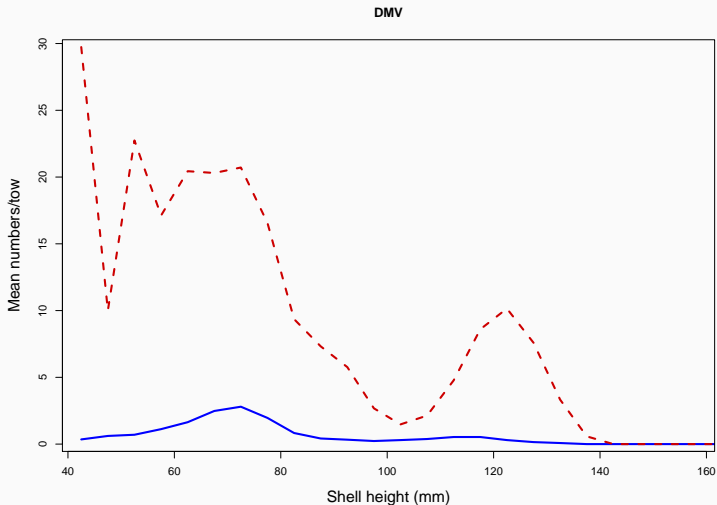


HCS Access Area

Red dashed line - Projection from 2019 Blue line - 2020 surveys

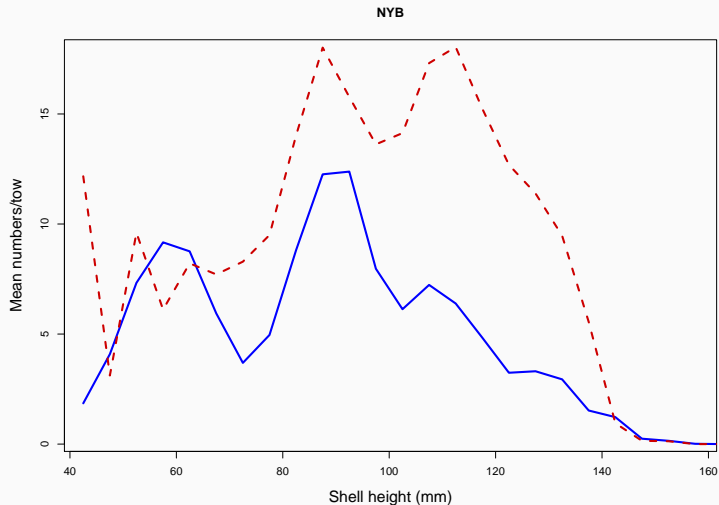


Red dashed line - Projection from 2019 Blue line - 2020 surveys



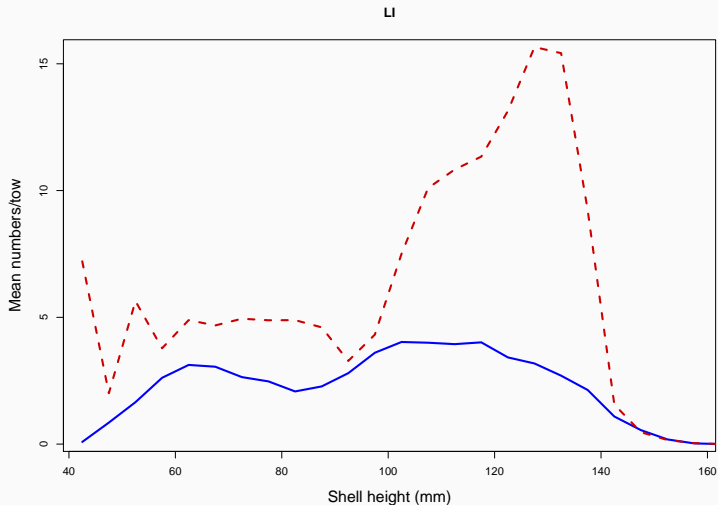
New York Bight

Red dashed line - Projection from 2019 Blue line - 2020 surveys



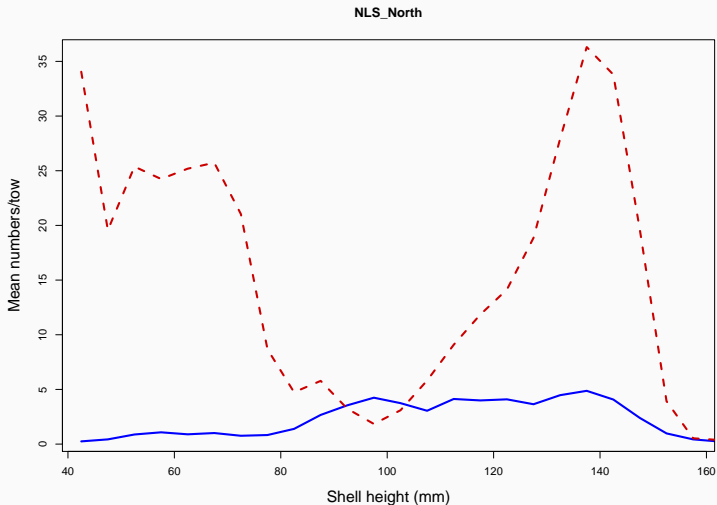
Long Island

Red dashed line - Projection from 2019 Blue line - 2020 surveys



Nantucket Lightship North

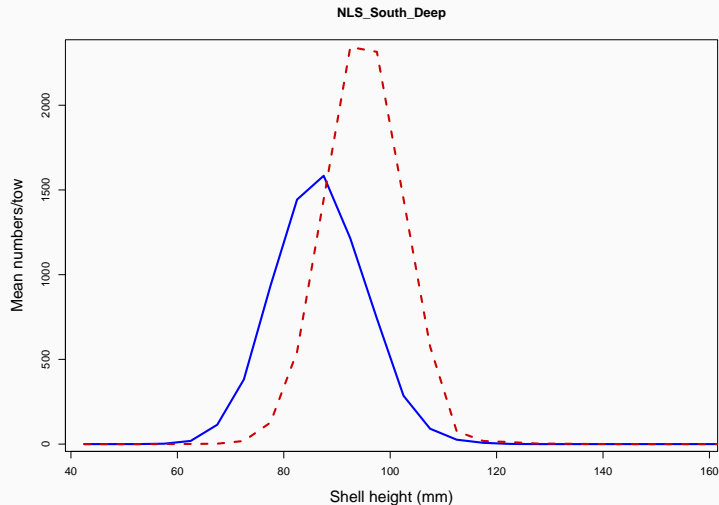
Red dashed line - Projection from 2019 Blue line - 2020 surveys



Nantucket Lightship South

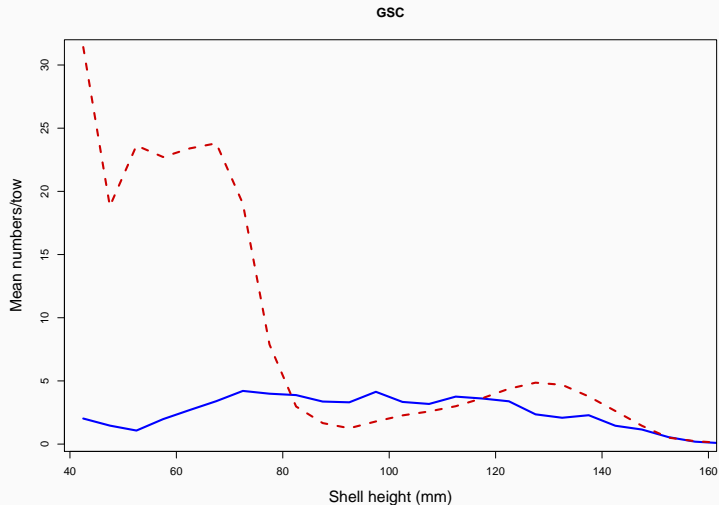
Red dashed line - Projection from 2019

Blue line - 2020 surveys



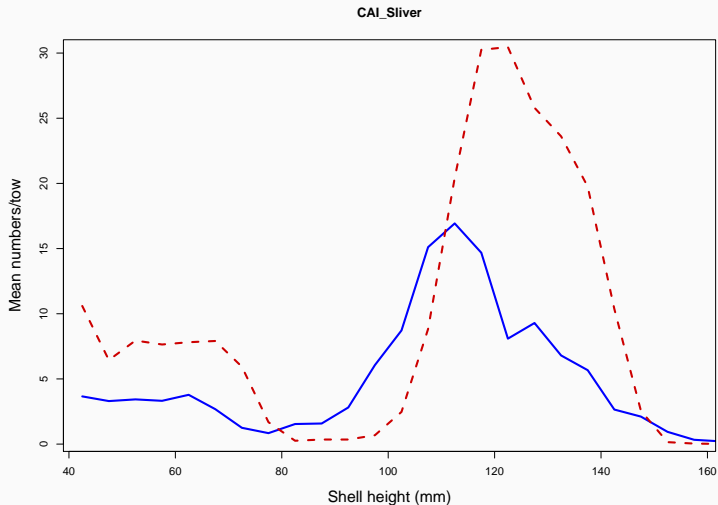
Great South Channel

Red dashed line - Projection from 2019 Blue line - 2020 surveys



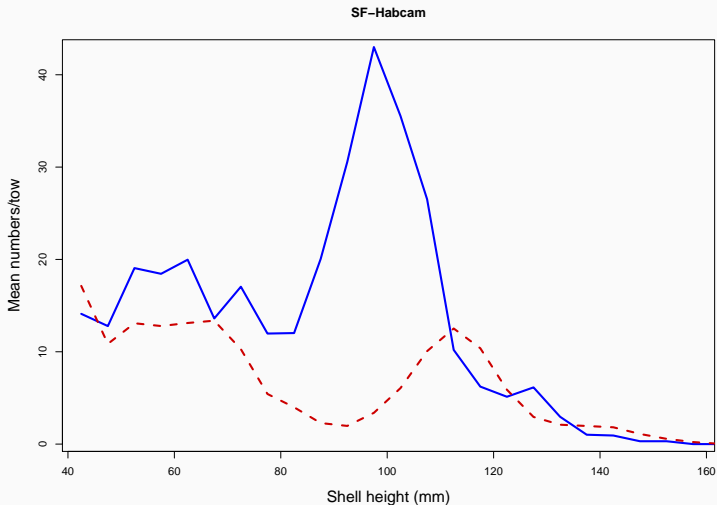
Closed Area I - Sliver

Red dashed line - Projection from 2019 Blue line - 2020 surveys

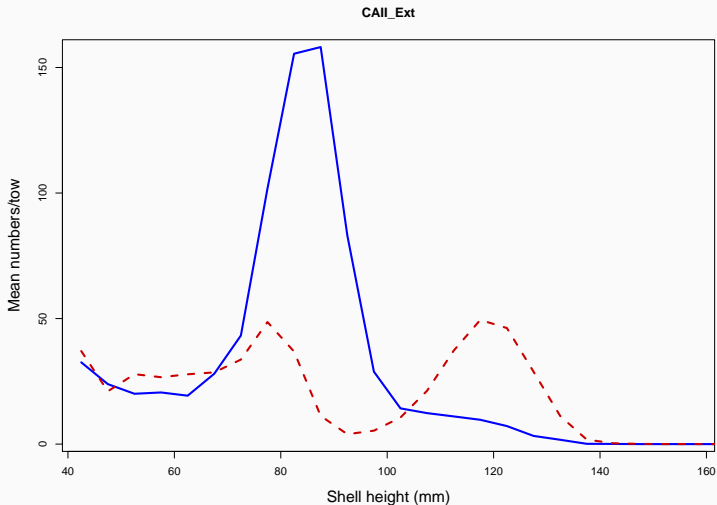


Southern Flank

Red dashed line - Projection from 2019 Blue line - 2020 surveys

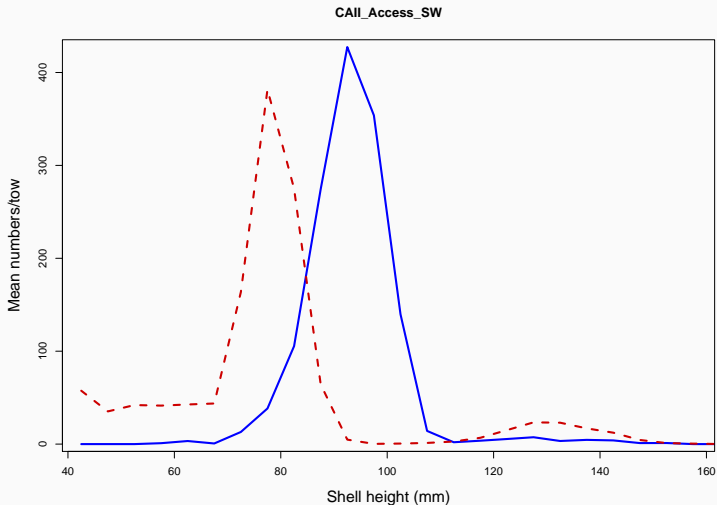


Red dashed line - Projection from 2019 Blue line - 2020 surveys

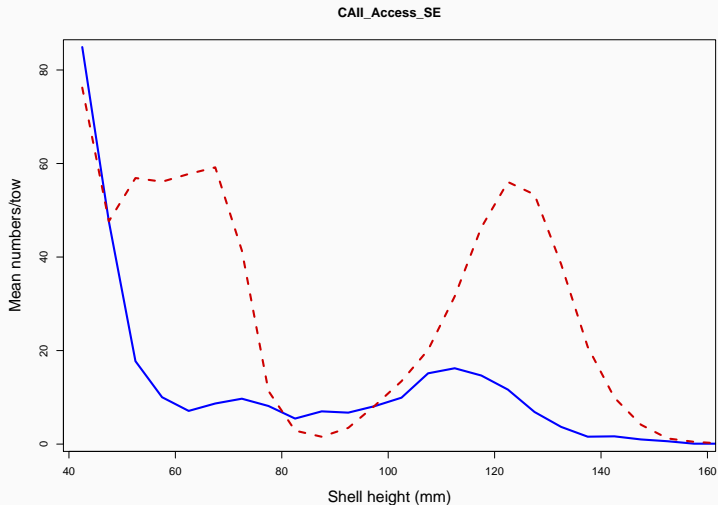


Red dashed line - Projection from 2019

Blue line - 2020 surveys



Red dashed line - Projection from 2019 Blue line - 2020 surveys



Conclusions

- Surveys in most but not all areas were below the projections
- Some of the underestimation can be explained by poor recruitment, survey error and additional fishing mortality due to the extra two months between surveys.
- However, there was likely some additional unexplained mortality (e.g., increased natural mortality) beyond that normally assumed in the SAMS model.